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Engineering Profits into Energy Operations

U.S., Canadian Rotary Rig Counts Are Hovering

The U.S. rotary rig count has been hovering around the 2,400-mark ever since mid-June in an unusual display of stability that has put the year-long average rig count only 10 rigs lower than the actual count on September 10.

Canadian activity has leveled off also, with approximately 260 rigs actually making hole throughout the summer.

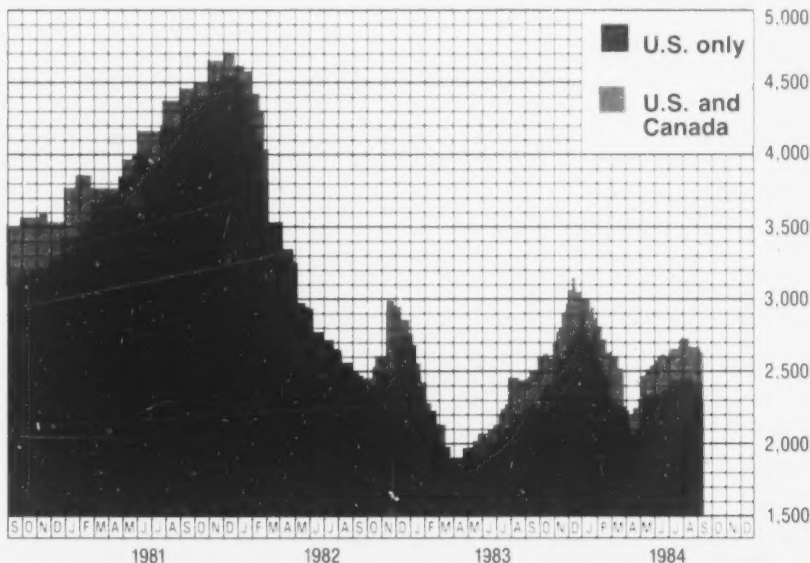
On a state-by-state basis in the U.S., there have been no major shifts. All states, in fact, have been marvels of consistency throughout the 3-month period. Illinois, for example, had 53 active rigs on June 11 and 53 on September 10. New Mexico's active rig count for July 11 was 73. And it was 73 again at mid-September. West Virginia's 43 active rigs in June were down by only one in September.

Traditionally, U.S. drilling activity increases steadily during the summer and peaks in the winter. This may not be one of those years.

Rotary rigs actually making hole in United States & Canada

As Reported To International Association Of Drilling Contractors By Hughes Tool Co.

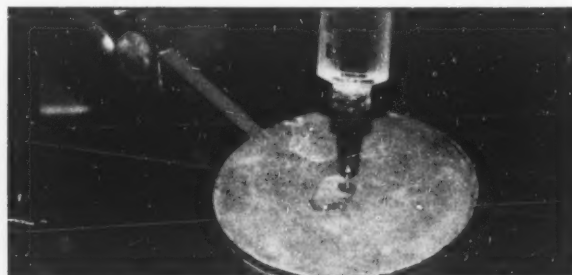
	Aug. 20, 1984	Aug. 27, 1984	Sept. 4, 1984	Sept. 10, 1984		Aug. 20, 1984	Aug. 27, 1984	Sept. 4, 1984	Sept. 10, 1984
Alabama	11	13	12	11	New Mexico	73	72	79	73
Land	3	3	3	3	New York	7	7	9	7
Inland Waters	1	1	1	1	North Dakota	61	54	55	55
Offshore	15	17	16	15	Ohio	51	59	59	57
Alaska					Oklahoma	300	275	278	281
Land	9	9	9	8	Pennsylvania	44	43	42	41
Offshore	9	6	5	5	South Dakota	2	3	3	2
Total	15	15	14	13	Tennessee	1	1	1	1
Arkansas	28	31	30	29	Texas				
California					Offshore	64	57	57	58
Land	91	84	90	84	Inland Waters	5	5	5	5
Offshore	14	17	17	17	Dist. 1-S. Central Tex.	15	16	15	13
Total	105	101	107	101	Dist. 2-Middle Tex. Coast	24	29	32	35
Colorado	50	57	57	58	Dist. 3-Upper Tex. Coast	93	97	90	92
Florida	3	3	2	2	Dist. 4-Lower Tex. Coast	82	83	81	75
Illinois	55	53	50	53	Dist. 5-Northeast Tex.	34	33	37	34
Indiana	8	8	8	8	Dist. 6-Far Northeast Tex.	74	79	75	69
Kansas	131	135	143	139	Dist. 7B-N. Central Tex.	48	47	45	43
Kentucky	11	9	9	9	Dist. 7C-W. Central Tex.	52	48	47	46
North Louisiana	31	32	32	27	Dist. 8-Far West Tex.	146	149	147	148
South Louisiana					Dist. 8A-West Tex.	64	60	73	75
Inland Waters	43	44	47	47	Dist. 9-North Tex.	66	67	68	74
Land	87	87	94	89	Dist. 10-Tex. Panhandle	43	39	39	38
Offshore	134	134	134	129	Total	810	809	811	805
Total	285	297	307	292	Utah	47	47	49	46
Michigan	40	41	37	38	Vermont	1	1	1	1
Mississippi	38	40	40	40	Virginia	4	4	4	4
Montana	36	37	40	41	Washington State	1	1	1	1
Nebraska	8	6	6	5	West Virginia	41	37	42	42
Nevada	8	8	7	5	Wyoming	119	123	116	112
New Jersey					Total U.S.	2,409	2,395	2,424	2,377
Offshore	1	1	1	1	Canada	250	243	248	245
					Canada-Offshore	13	17	18	18
					U.S. and Canada	2,672	2,655	2,690	2,640



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MODERN DRILLING AND PRODUCTION PRACTICES

Horizontal Well Proves Productivity Advantages 23

by Andre P. Jourdan, Elf Aquitaine, and Guy Baron, Institut Français du Pétrole. Behavior of vertical wells in the reservoir indicated that a horizontal hole would increase the chances of intersecting vertical fractures.

Hand-Held Computer Designs Rod Pumping Installation 26

by John D. Herlihy, John W. McGowan. Experience shows that use of a standing salt water fluid level for the working depth plus 200 ft works well. The 200 ft compensate for the additional pressure that is required to load the pump barrel.

New Methods For Low-Solids Mud Control, Part 2 40

by J. C. Estes and D. B. Anderson, Amoco Production Co., and G. R. Benta, Welch Inc. A procedure for determining the specific gravity of barite is reliable, simple, and can be performed with equipment found in the field.

Modern Production Risers, Part 13 48

by George W. Morgan, Engineering Consultant. The general problem in full-scale riser testing, for verification of analytical algorithms, involves simultaneous recording of at least three major categories of events.

How Improper Pump Selection Influences ESP Cable Failure 60

by John Beavers, Centrilift-Hughes. Low well productivity, either from a pumped-off or gas-locked condition, generates excessive heat in the pump because velocity of the fluid past the motor is less than the necessary 1 ft per second.

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ABOUT THE COVER: New technology and equipment pave the way for advances in drilling and production. (Photo courtesy of Texaco Inc.)

NEXT MONTH: The annual production improvement report in November will discuss innovative methods and materials.